Applicant: Alexei A. Erchak Attorney's Docket No.: 16459-011001 / LD-11

Serial No.: 10/724,015

Filed: November 26, 2003

Page : 2 of 13

Amendments to the Specification:

Please replace the title at page 1 with the following amended title:

PATTERNED LIGHT EMITTING DEVICES

Please replace the paragraph beginning at page 6, line 3 with the following amended paragraph:

In another embodiment, the invention features a light-emitting device that includes a multi-layer stack of materials. The multi-layer stack of materials includes a light-generating region and a first layer supported by the light-generating region so that, during use of the light-emitting device, light generated by the light-generating region can emerge from the light-emitting device via a surface of the first layer. The light-emitting device has an edge which is at least about one millimeter (e.g., at least about 1.5 millimeters, at least about tow two millimeters, at least about 2.5 millimeters) long, and the light-emitting device is designed so that the extraction efficiency of the light-emitting device is substantially independent of the length of the edge of the length of the edge.

Please replace the paragraph beginning at page 6, line 12 with the following amended paragraph:

In a further embodiment, the invention features a light-emitting device that includes a multi-layer stack of materials. The multi-layer stack of materials includes a light-generating region and a first layer supported by the light-generating region so that, during use of the light-emitting device, light generated by the light-generating region can emerge from the light-emitting device via a surface of the first layer. The light-emitting device has an edge which is at least about one millimeter (e.g., at least about 1.5 millimeters, at least about tow two millimeters, at least about 2.5 millimeters) long, and the light-emitting device is designed so that the quantum efficiency of the light-emitting device is substantially independent of the length of the edge of the length of the edge.

Alexei A. Erchak Attorney's Docket No.: 16459-011001 / LD-11

Applicant: Alexei A. Erchak Serial No.: 10/724,015

Filed: November 26, 2003

Page : 3 of 13

Please replace the paragraph beginning at page 6, line 21 with the following amended paragraph:

In one embodiment, the invention features a light-emitting device that includes a multi-layer stack of materials. The multi-layer stack of materials includes a light-generating region and a first layer supported by the light-generating region so that, during use of the light-emitting device, light generated by the light-generating region can emerge from the light-emitting device via a surface of the first layer. The light-emitting device has an edge which is at least about one millimeter (e.g., at least about 1.5 millimeters, at least about tow two millimeters, at least about 2.5 millimeters) long, and the light-emitting device is designed so that the wall plug efficiency of the light-emitting device is substantially independent of the length of the edge of the length of the edge.

Please replace the paragraph beginning at page 13, line 14 with the following amended paragraph:

It is to be noted that the charge carriers in p-doped layer 126 128 have relatively low mobility compared to the charge carriers in the n-doped semiconductor layer 134. As a result, placing silver layer 126 (which is conductive) along the surface of p-doped layer 128 can enhance the uniformity of charge injection from contact pad 138 into p-doped layer 128 and light-generating region 130. This can also reduce the electrical resistance of device 100 and/or increase the injection efficiency of device 100. Because of the relatively high charge carrier mobility of the n-doped layer 134, electrons can spread relatively quickly from n-side contact pad 136 throughout layers 132 and 134, so that the current density within the light-generating region 130 is substantially uniform across the region 130. It is also to be noted that silver layer 126 has relatively high thermal conductivity, allowing layer 126 to act as a heat sink for LED 100 (to transfer heat vertically from the multi-layer stack 122 to submount 120).

Applicant: Alexei A. Erchak Attorney's Docket No.: 16459-011001 / LD-11

Serial No.: 10/724,015

Filed: November 26, 2003

Page : 4 of 13

Please replace the abstract at page 41 with the following amended abstract:

Light-emitting devices, and related components, systems and methods are disclosed. A light-emitting device can include a multi-layer stack of materials including a light-generating region and a first layer supported by the light-generating region. During use of the light-emitting device, light generated by the light-generating region can emerge from the light-emitting device via a surface of the first layer. The light-emitting device can have an edge which is at least about one millimeter long and can be designed so that an extraction efficiency of the light-emitting device is substantially independent of the length of the edge.